

## MINUTES OF DOT-AGC BRIDGE DESIGN SUBCOMMITTEE MEETING

The DOT-AGC Joint Bridge Design Subcommittee met on April 11<sup>th</sup>, 2007. Those in attendance were:

Greg Perfetti	State Bridge Design Engineer (Co-Chairman)
Berry Jenkins	Manager of Highway Heavy Division, Carolinas Branch AGC (Co-Chairman)
Ron Hancock	State Bridge Construction Engineer
Randall Gattis	Sanford Contractors
George White	Blythe Construction
Bryan Long	Dane Construction, Inc.
Erick Frazier	S.T. Wooten Corporation
Chris Britton	Taylor & Murphy Construction Co.
Mark Johnnie	Balfour Beatty
Allen Raynor	Asst. State Bridge Design Engineer
Tom Koch	Structure Design Project Engineer
Paul Lambert	Structure Design Project Engineer
Chris Kreider	Regional Operations Engineer – Geotech. Eng. Unit
Scott Hidden	Support Services Supervisor – Geotech. Eng. Unit
Nilesh Surti	Design-Build Engineer – Alternative Delivery Unit
Gichuru Muchane	Structure Design Engineer

During the review of the February 14<sup>th</sup>, 2007 meeting minutes, the following items were discussed:

### *1. Micropile Projects*

Mr. Hidden reported that a special provision for micropiles is near completion and would be sent out to Mr. Jenkins and Mr. Hancock for distribution to contractors for their comments. He added that one of the two bridges on project B-4280 (Stokes County) will be designed for micropiles and will be let in July, 2007. The special provision will be in effect for B-4280.

Mr. Hidden added that a project with a micropile alternate was recently let, and the contractor elected to build the micropile alternate.

### *Post-Meeting Note:*

The trial micropile foundation for project B-4280 was contingent on receiving FHWA funds under the IBRD program. The micropile foundation for B-4280 has been eliminated in favor of drilled piers because the Geotechnical report noted a deep rock line and the presence of weathered rock. Ashe County project B-4012 has been chosen as a replacement and will have a micropile interior bent.

### *2. Concrete Containing Fly Ash*

Mr. Hancock invited all to a Concrete Ready Mix Association (CRMA) meeting on Tuesday, April 17<sup>th</sup> at 1:30 PM at the Materials and Tests Unit, noting that Fly Ash in Concrete was on the agenda.

The minutes of the February 14<sup>th</sup>, 2007 meeting were approved.

The following items of new business were discussed:

### *1. Draft Policy & Special Provision on MSE Walls*

Mr. Hidden distributed a draft policy and a draft Special Provision for Mechanically Stabilized Earth (MSE) retaining walls. These documents address approved use and installation of MSE walls and backfill materials. Mr. Hidden requested contractor feedback on the draft policy and special provision.

2. *Railroad Flagging Pay Item*

Mr. Hancock discussed the Department's interest in containing railroad flagging costs. There was some discussion on current and alternate contracting methods, and various ideas for containing flagging costs. Suggestions included A+B bidding, where there is a line item for flagging, and bidding similar to "lane rental," where the Department specifies the flagging unit cost and the contractor determines the required number of days for flagging. Contractors were open to alternate contracting methods, but recognized that railroad flagmen operate under their Union Rules, which often dictate availability of the flagmen. *Structure Design will work with Project Services to develop a couple of draft flagging payment methods for review at a future meeting.*

3. *Ocracoke Project*

Mr. Hancock discussed the issues and challenges of 6 bridge replacements on NC 12 on Ocracoke Island (TIP B-5016). The project will have an 8 week advertisement period and will be let in July 2007. NC 12 is the only major road on the island and it will be closed on January 1, 2008 for construction. The remote location and lack of alternate access necessitates a short road closure period of approximately 75 days. The contractor will be permitted to begin stockpiling precast bridge elements, materials, and equipment in October 2007. Discussions on all aspects of the logistics are ongoing. The Department would like to generate enough contractor interest to ensure a successful project.

4. *Special Provision for Adhesive Anchors*

Mr. Koch distributed a draft of the revised Special Provision for Adhesively Anchored Anchor Bolts or Dowels and some information on the uses and field testing of adhesive bonding systems. Contractors were invited to provide feedback on the draft provision.

There were some questions on the requirements for temporary applications of adhesive anchor bolts, to which Mr. Lambert responded by noting that those applications are evaluated with the submittal.

5. *Protection of Traffic Submittals (Girder Stability)*

Mr. Gattis noted that the Special Provision for Protection of Traffic requires Contractors to brace girders during all stages of construction. He suggested that concrete girders should be exempt from this requirement because their calculations and experience show that the girder weight is sufficient to resist overturning from lateral wind loads. Mr. Hancock noted that the length of concrete girders has increased in recent years and that depending on the site specific conditions, there may be a need to provide temporary bracing. He noted that it is not the Department's expectation that the bracing be designed for accidental equipment impacts, but that lateral wind loads are the main concern. As such, there was consensus to maintain the bracing requirements.

6. *Other*

i. Deflections due to build up on steel girders:

Mr. Britton requested that the Department review the current method of providing build up information. He specifically would like a note or other indicator to clearly flag that only the dead load deflections for deck slab and barrier be used in determining build ups. The Department will review the current deflection table to see if improvements can be made.

7. *Next Meeting*

The next meeting is scheduled for Wednesday, August 15<sup>th</sup>, 2007 in Structure Design Conference Room C.